

Megalobrama amblycephala circRXRBB regulates antimicrobial immune response against *Aeromonas hydrophila* infection via miR-155/socs1a axis



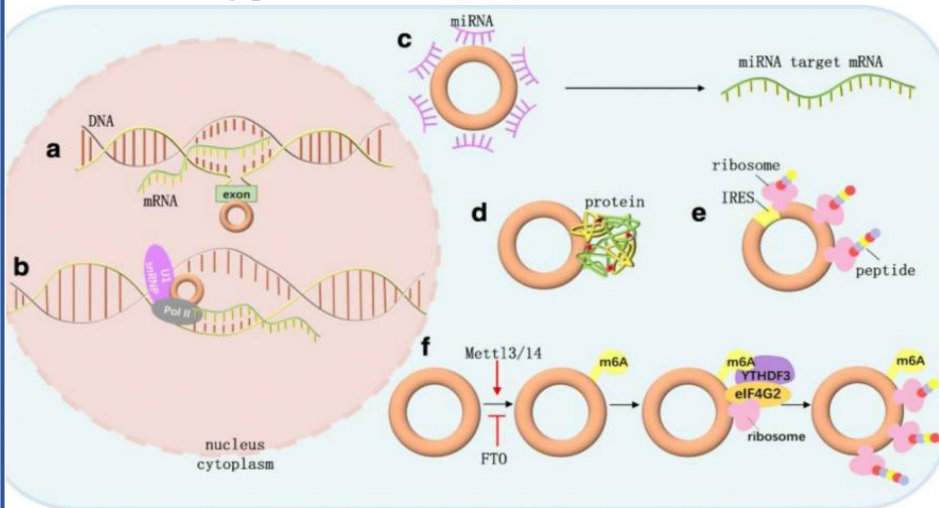
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Introduction

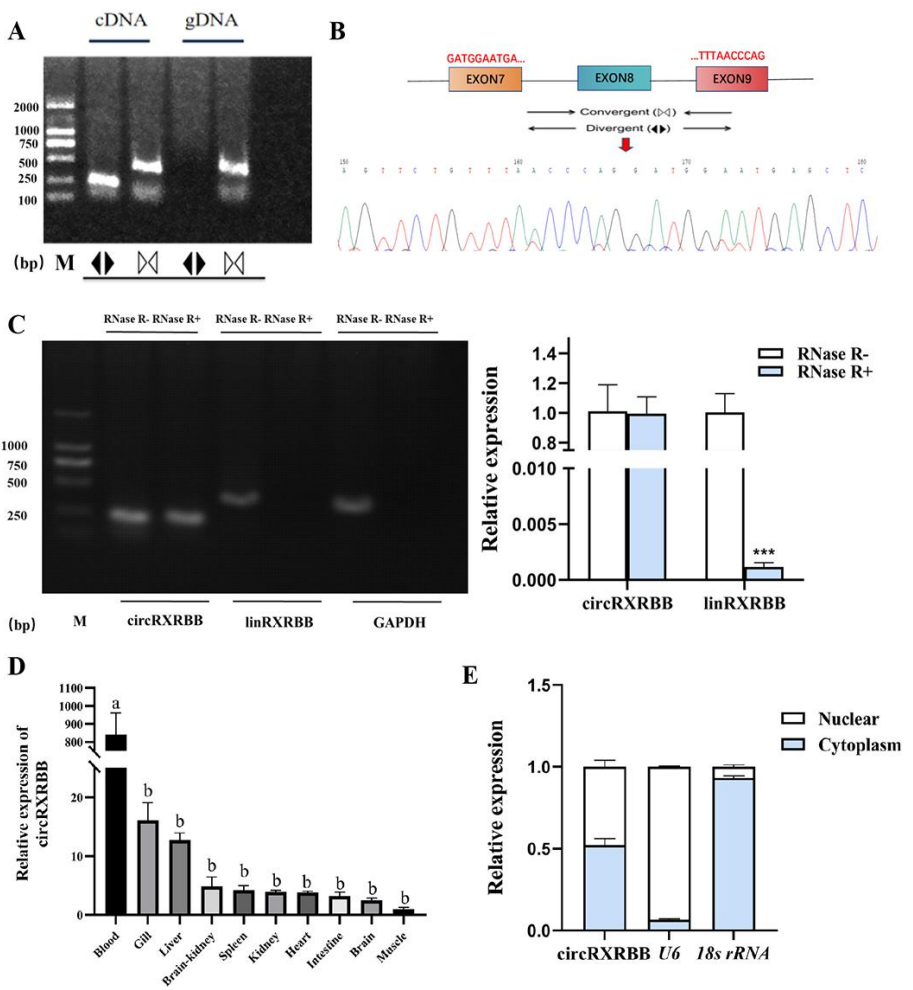
Circular RNAs (circRNAs) play an important role in various of human diseases by acting as competing endogenous RNAs (ceRNAs) and can serve as biomarkers and therapeutic targets. The functions of circRNAs include participating in gene transcription regulation, acting as microRNAs (miRNAs) sponges, interacting with proteins, and translating proteins.



Results

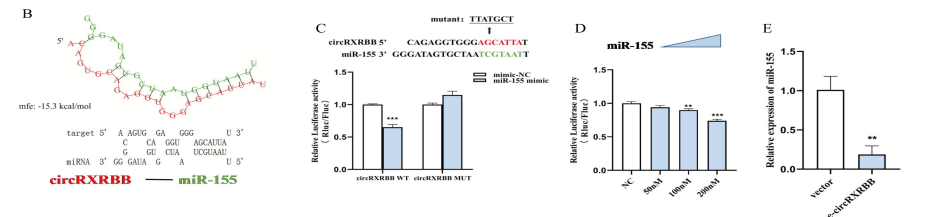
Characterization of circRXRBB

we identified a circRNA called circRXRBB and also explored its characterization.

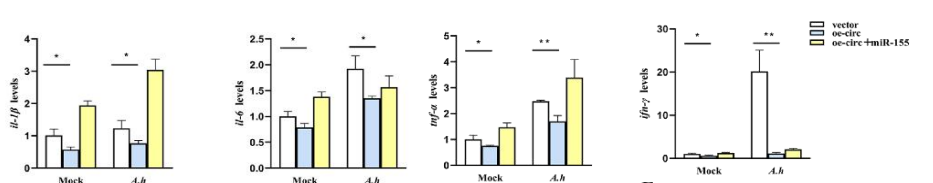


Results

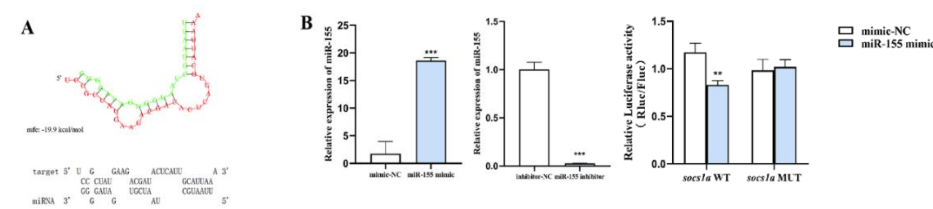
circRXRBB could directly bind to miR-155



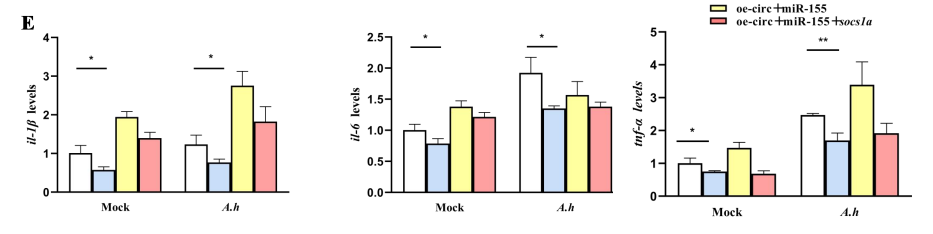
circRXRBB affected expression of immune factors after *A. hydrophila* infection by sponging miR-155



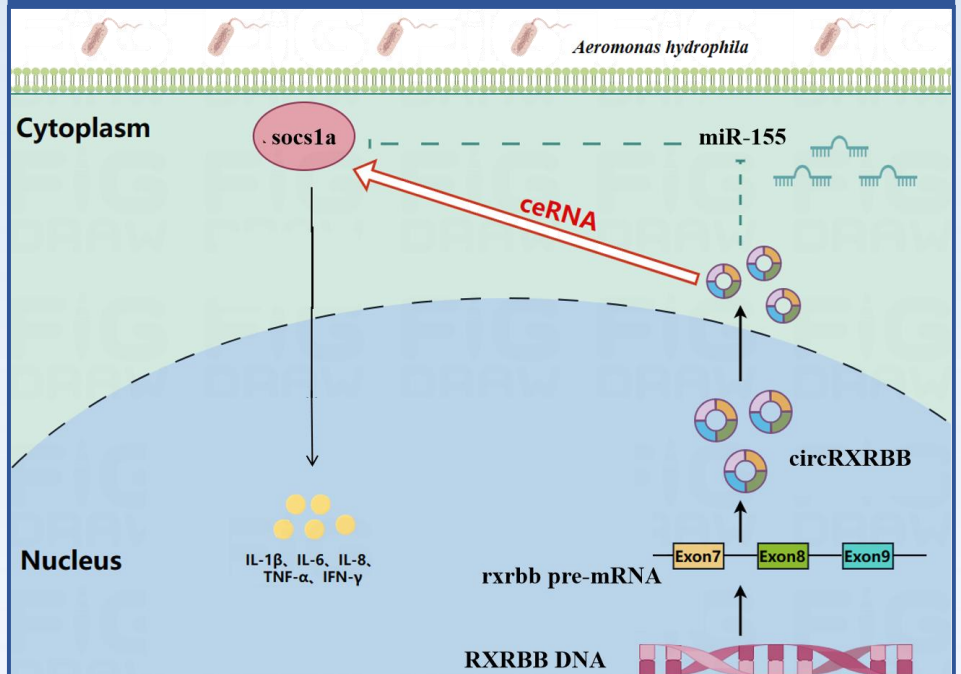
miR-155 could target socs1a



circRXRBB regulated expression of immune factors through miR-155/socs1a axis



Conclusion



Schematic illustration of circRXRBB's regulatory mechanism of antimicrobial immune system in *M. amblycephala* after *A. hydrophila* infection.